U.S. Research Groups going to War again over Small Business Funding

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Advocates for small businesses and the U.S. research community are once again at loggerheads over pending legislation to expand a multibillion-dollar federal program that promotes commercialization of academic research. It's shaping up as another long, hard fight: Science lobbyists are playing catch-up but have time on their side, while small business leaders say they don't understand why more academics aren't in their corner.

The Small Business Innovation Research (SBIR) program, begun in 1982, is funded by taxing the research budgets of 11 federal agencies. This year, for example, the National Institutes of Health (NIH) will spend almost \$900 million of its \$32 billion budget on SBIR and a smaller, related program called Small Business Technology Transfer Research (STTR).

The money is awarded competitively to small business owners, many with university ties, to fine-tune technology so that it can be commercialized. Legislation moving through both houses of Congress would raise the current 3% SBIR set-aside significantly over the next several years—to 6% by 2028 in the Senate version (S. 2812), and to 4.5% by 2022 in the bill before the House of Representatives (H.R. 4783). STTR, now at 0.45%, would grow by 2022 to 0.6% in the House bill and 1% in the Senate bill.

Although both sides agree that more academic research needs to be turned into products and services, science lobbyists oppose growing the SBIR program at the expense of funding fundamental science. "We recognize that the SBIR and STTR programs are an important component of the innovation pipeline," 77 professional societies and academic organizations wrote in a 13 May letter to key legislators. "However, a mandatory increase in the SBIR/STTR allocation as proposed ... will result in fewer research opportunities for investigators." It also comes at the wrong time, they write: "The proposed increases ... would be implemented when future funding levels for the federal science agencies are very uncertain."

Advocates for the increases say the country needs to do more to commercialize federally funded research, and that SBIR has proven its effectiveness. "Increasing the ability of small businesses to compete for R&D awards is a good use of taxpayer dollars, says Haley Dorgan, a spokesperson for Senator Jeanne Shaheen (D-NH), who sponsored the bill that the Senate Committee on Small Business and Entrepreneurship approved last week. (The House bill was approved by the House Small Business Committee on 23 March.) "Despite representing a sliver of the research and development budget," Dorgan says, "studies have found that the SBIR/STTR program punches well above its weight."

Starting from Behind

Research advocates admit that they were caught off-guard by both the timing and the contents of the legislation. The current law governing SBIR and STTR, passed in 2011, doesn't expire until September 2017, so the reauthorization wasn't on her radar, says Jennifer Zeitzer of the Federation of American Societies in Experimental Biology (FASEB) in Bethesda, Maryland. Zeitzer and other lobbyists hope that a 16-month lead time—practically forever in the context of the never-act-until-the-last-minute mentality of Congress—will give them a good shot at modifying the legislation.

Their chief goal is to kill any additional increases in the SBIR set-aside beyond the already mandated rise next year to 3.2%. "There is no evidence that [increases] are necessary or beneficial to the nation," they wrote on 10 May to the chairman and ranking member of the House science committee, which has jurisdiction over some of the agencies with SBIR programs. They say the government should first assess the impact of the 2011 law, which gradually raised the set-aside from 2.5% for SBIR and 0.30% for STTR.

The biomedical community has long resented the SBIR program. In addition to trying to protect the pot for basic research, academic lobbyists claim that SBIR grants are often of lower quality than NIH's bread-and-butter R01 grants that support the typical academic researcher. There's also no evidence of rising demand that would warrant a larger set-aside, Zeitzer says, noting that the number of SBIR applications at NIH fell from 6415 in 2011 to 5644 in 2015, a 12% drop.

To Jere Glover, none of those arguments is new—and none holds water. Glover, a former chief counsel for advocacy at the Small Business Administration and a long-time champion of the SBIR program, has been spearheading the changes as executive director of the Small Business Technology Council in Washington, D.C. He says the number of applications has always been cyclical and very sensitive to external factors—the 2011 figure represents a 10-year peak and a 50% rise from a 2007 trough, for example, most likely generated by the infusion of federal dollars in the 2009 stimulus. He thinks that the academic community is being short-sighted in opposing a program that the U.S. National Academies of Sciences, Engineering, and Medicine has repeatedly found is accomplishing its mission and creating jobs for thousands of scientists and engineers who can't find academic positions after they graduate.

"We're part of the pipeline," he says. "There are a fixed number of positions for professors, so most of their students are going to have to work outside academia. And it's most likely that they go to a small business, since they create two-thirds of all jobs."

Basic research shouldn't exist in a vacuum, he adds, and SBIR is meant to ensure it has a real-world payoff. "[Critics] say we're eating our seed corn by spending more money on commercialization," he adds, referring to a common metaphor used to describe the value of basic research. "But that seed corn will die if you don't use it to feed something—and that's what the SBIR program does."

Glover's arguments prevailed in both the House and Senate committees, which passed their bills without a dissenting vote. But advocates are still a long way from claiming victory.

Clock is Ticking

One obstacle is that Congress, with a lot on its plate and relatively few legislative days before the November elections, is very unlikely to pass a bill devoted to reauthorizing the SBIR program. So Shaheen and other supporters are trying to advance the cause by attaching the SBIR changes to one of the few pieces of legislation that is likely to become law this year—the annual bill setting policies for the Department of Defense (DOD). Last week they convinced the Senate Armed Services Committee to include language in its reauthorization that would make SBIR permanent at DOD, which spends roughly half of all SBIR dollars.

Although her bill would make SBIR permanent across the government, Shaheen says the language in the DOD bill would send a message to would-be entrepreneurs that the program is here to stay. (There were 14 short-term extensions to the program in the 3 years before the 2011 reauthorization, Glover notes.) The full Senate is expected to take up the DOD bill later this month.

Not surprisingly, academic lobbyists also plan to fight that provision, calling it an "inappropriate" way to deal with a program that affects so many agencies. But Glover says that is simply shorthand for wanting to block any reauthorization. "They know that would kill it."

Opposing the DOD provision is part of a two-pronged strategy by the research community. The House SBIR bill must also be considered by the House science committee, and science lobbyists are betting that the panel will take its time in pondering the legislation. Observers say there's already bipartisan opposition to increasing the set-aside. If true, it would be a rare meeting of minds on a committee where Democrats and Republicans seem to disagree on almost everything.

In the meantime, Glover is hoping that he and the research community can find common ground based on what he calls their overlapping interests. "Universities are involved in some way on 60% of the SBIR awards, and for STTR, it's 100%," Glover says. "We have a lot in common." Zeitzer and her colleagues say that universities are all in favor of "scientific and technological collaboration between faculty and industry." But increasing the SBIR set-aside is a deal-breaker, she insists.



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Jeff tries to explain how government works to readers of Science.